DR. ROBERT R. MCMEEKIN ARMED FORCES INSTITUTE OF PATHOLOGY ORAL HISTORY PROGRAM

SUBJECT: Dr. Robert R. McMeekin INTERVIEWER: Charles Stuart Kennedy

DATE: May 26, 1992

[Note: This transcript was not edited by Dr. McMeekin]

Q: Doctor, I wonder if you could give me a bit about your background. First, where you were born, when you were born, and a little about your early years.

DR. MCMEEKIN: I was born in Bloomington, Illinois, in 1941. That was just before the war. My father was a dentist in South Carolina. He had been in school at Northwestern Dental School, where he had met my mother. Shortly after I was born, we moved to South Carolina, where I spent most of my early years. I went to Wofford College, in Spartanburg, South Carolina, and then to Yale Medical School, in New Haven, Connecticut.

Q: What were your early interests? Let's talk about high school.

DR. MCMEEKIN: Well, over my father's objections, who really wanted me to be a dentist, I always had my heart set on being a neurosurgeon. I was very intent on doing that, even through medical school. And I guess it was my last year in medical school that I met a mentor, a pathologist, Dr. Roy Barnett, and Dr. Averell Lebo, too, who convinced me that pathology was more fun than surgery.

Q: That was sort of a different course than most people would take. Neurosurgery, speaking as a layman, was sort of where you really went for the acme of the profession, wasn't it?

DR. MCMEEKIN: Well, it seemed really exciting and a lot of things to do. And it was a tear. But I guess spending the time with Dr. Lebo and also with Dr. Paul Beson, who was an internist, and Dr. Barnett, I saw that pathologists saw everybody's most interesting patients. And so it was a struggle, but it tore me away from surgery. Still, I went through a surgery internship. I went to the North Carolina Memorial Hospital at the University of North Carolina. And that was a grueling year: it was on call every night for a year, seldom out of the hospital before midnight on the best of nights. So when the Army called, going to the basic training at Fort Sam was like going to Boy Scout camp, and I had great fun.

Q: You got out of Yale Medical School when?

DR. MCMEEKIN: By 1965.

Q: So you had a year of internship, is that right?

DR. MCMEEKIN: Right.

Q: What type of cases were you treating down in North Carolina?

DR. MCMEEKIN: Well, the interns rotated through the services, and so I saw orthopedic cases, ENT cases, general surgery cases, cardiovascular cases. And I enjoyed that. I enjoyed the pre-op diagnosis and post-op care probably more than the actual operating. Once I had done an operation, I had done that, and if I didn't ever do another one just like it, it was okay, I was ready to do something new.

Q: Let me ask a question, in the interest of history. There has been a lot of criticism, particularly in later years, of the use of interns, as you say, on call all the time, and here is your primary medical source--looking at it from the patient's point of view--somebody who is overworked and overtired.

DR. MCMEEKIN: And underpaid.

Q: What is your impression? Maybe it's a good initiation for the doctor, but what about for the medical treatment?

DR. MCMEEKIN: Well, I think a lot of that's changed. I don't know of any programs now that have medical staff on call every night, where they're actually in the hospital working on patients all day, every night.

It was a grueling year, and I don't think that I appreciated at the time how tired we had all gotten to be. It was a way of life. It many respects it was fun, because we were seeing a lot of interesting cases; there was a lot going on.

Q: Well, then the military called. Was this sort of the beginning of the call-up for the Vietnam War?

DR. MCMEEKIN: Right.

Q: Did you have a commission beforehand?

DR. MCMEEKIN: No, I didn't. And while many people had joined the Berry Program, the New England schools were, I think it's fair to say, anti-military, and I thought going into the military was probably the worst thing that could happen to anyone. And here came a notice from my Draft Board, and I thought, "Well, I've got to salvage something from this," so I began looking around at training programs. I had made the decision while I was still in medical school that after my internship I was going to go and look for pathology, figuring that I would go back to Yale in pathology. And I talked to Dr. Lebo about that and was prepared to do that.

The Army's premier program was at Walter Reed, and so while I was in San Antonio, I

pursued that.

Q: You were you at the Brooke Army...?

DR. MCMEEKIN: No, I was there for the basic training program. It was, I'm not sure, maybe seven, eight, ten weeks, something like that.

Q: Was there any choice between the Army and the Navy or the Air Force?

DR. MCMEEKIN: I did consider the Air Force and Navy. It seemed to me that there were more options in terms of training programs and follow-on medical type assignments in the Army than in the Air Force or Navy.

Q: So, after that sort of basic training, then you could try to at least influence where you went as far as a specialty went?

DR. MCMEEKIN: Well, probably more than I realized at the time. But I did make my interests known.

I might say, in talking about basic training down there, this was not medical training so much as it was map reading and Boy-Scout-camp things.

Q: Learning how to salute and be an officer.

DR. MCMEEKIN: That's right. I remember the first thing our sergeant told us there was that officers don't run.

Q: So you made your wishes known that you wanted to specialize in pathology?

DR. MCMEEKIN: Yes

Q: *So what happened?*

DR. MCMEEKIN: Well, there was a vacancy at Walter Reed, and so I said, "Yeah, that sounds great to me, I've heard of that place."

Q: Well, you came here, where we are right now, to Walter Reed, when?

DR. MCMEEKIN: In September of '66.

Q: And essentially your career in the military has been associated with this Institution here.

DR. MCMEEKIN: That's right. In the late sixties, Walter Reed's laboratories were on the second floor of the AFIP. That was a tremendous advantage for the residents and for the Walter Reed staff, because the consultation of the AFIP staff was literally just around the corner, and we could take

cases down and get a better-than-textbook discussion on any difficulties.

Q: What was the situation in the mid-1960s at Walter Reed? What type of cases were they getting, and where were you concentrating while you were with Walter Reed?

DR. MCMEEKIN: Well, Walter Reed was a specialty referral center, and they were receiving a lot of Vietnam wounded. I would guess that the total hospital census must have been in excess of 2,000 beds. They had expanded and were using the Forest Glen annex for a lot of, particularly, orthopedic and psychiatric cases that didn't require intensive types of care. But it was a specialty referral area. And I remember my first hundred autopsies; I'm sure that there were at least seven cases of systemic lupus erythematosus, which at that time was a very obscure series of cases. Testicular tumors, a lot of pathologists might not see one of those in a lifetime, and I'm sure I had three or four of those.

Q: Was this because of the selection of referral cases? These were military patients that were...

DR. MCMEEKIN: Military patients, retirees, dependents.

Q: The AFIP was already in place by this time.

DR. MCMEEKIN: That's correct.

Q: How did you find relations between this separate institute and a working hospital? What was your impression of this when you first came here?

DR. MCMEEKIN: Well, as a resident I thought it was great, and it seemed to work really well. There may have been some tension at the higher levels. I'm sure that the AFIP probably coveted that space, because Walter Reed had half of the second floor. But as far as I could tell, things were very smooth.

Q: Well, just sort of as an example, you'd be given, say, a specimen of somebody who was either going to be operated on or who was right there in the hospital. Although you were in this place here, you would act as a regular pathologist for the hospital, is that right?

DR. MCMEEKIN: That's right, even though I think some people at Walter Reed thought of us as AFIP residents, part of them.

Q: But then you would be able to respond immediately or as quickly as possible.

DR. MCMEEKIN: As quickly as possible. It was just over a mile, I think, to the operating theater, and there was a pneumatic tube that would go from the operating suite over to our laboratories. It didn't always work, and we'd often have to go jogging down to the operating room.

Q: You had some world authorities on things such as testicular tumors and all right here. Dr. Mostofi, for instance. Did you find that if you had a case right then, or maybe it was somebody who was on the operating table, you could walk around the corner and say, "Hey, look at this," or something like that?

DR. MCMEEKIN: Oh, absolutely, yes. And, of course, when I came in, our chief of pathology, Dr. Mike Sulak, was also, I think, pretty well known in testicular neoplasms. He published a series of, I think, several hundred of these testicular tumors, and it may well have been in conjunction with Dr. Mostofi; I know that he consulted with him.

Q: But you found that, say, at the working level there was a...

DR. MCMEEKIN: As far as I could tell, yes. We would take our pink slips, which were our consultation slips, down. More often than not they would get written while we waited for them, as opposed to waiting for days or weeks, as it might take for some of the referred-in cases.

Q: Well, at this time it was the Armed Forces Institute of Pathology, which meant a joint institute. You were Army, did you find the presence of the Navy and the Air Force working well within this Institute?

DR. MCMEEKIN: From my perspective, I thought it worked well. It created a healthy tension and brought in a lot of diversity. But not everyone agreed with that. I think some of the people thought we should all get in formation and do things the same way. Of course, if everyone does things the say way, you run the risk of everyone doing it the same way wrong.

Q: What were relations between Walter Reed and Bethesda? These are the two great names in military medicine. Did you have the feeling they were each going in their own course, not necessarily divergent but not particularly working together?

DR. MCMEEKIN: Well, Bethesda had its own pathology department, and they were Bethesda's pathology department, and we were Walter Reed's pathology department, but we had the advantage of being in the AFIP building. So while there was interaction between the AFIP and Bethesda, it wasn't on the same level, I think, as with Walter Reed. There were residents and staff from Bethesda who would come for rotations through the AFIP pathology departments; I remember seeing them.

Q: How long did you stay with the Walter Reed pathology?

DR. MCMEEKIN: Four years.

Q: And then what change did you make? Did you come over to the AFIP then?

DR. MCMEEKIN: Well, I was interested in clinical chemistry. My major in college was in

chemistry, and I wanted to go out and run a hospital laboratory. They knew I was interested in aviation and asked that I come to the AFIP. I said, well, just for one year, and they said okay. And after one year they said, well, we need you to stay another year. And so it was one more year for about four years before I finally realized that they weren't interested in moving me and I was beginning to like the accident investigation business.

Q: So you came into what, accident investigation?

DR. MCMEEKIN: It was called aviation pathology.

Q: Could you describe for the layman what aviation pathology entailed?

DR. MCMEEKIN: Well, the aviation pathologists were pathologists who generally had an interest in forensic pathology, although at that time a lot of draftees and Berry Planners were also brought to the department who didn't necessarily have any specialized interest or training. And they would review the pathology--photographs, slides, tissues--from aircraft accidents.

Q: Well, what would these prove? I mean, the person was dead, and it's fairly well known that it's not a good idea to be in an airplane that's going to crash. What could you develop from this?

DR. MCMEEKIN: Well, we worked closely with the toxicology department (at that time, Able Domingus was the chief there), looking for alcohol, drugs. In terms of the tissue pathology, everyone of course was concerned about heart attacks, and so we tried to look for those things. Decompression, hypoxia.

Q: So you weren't really looking as much at the results of the crash, which were fairly well known, they're not good for the body, but looking for what might have caused the crash.

DR. MCMEEKIN: Looking for causes, but also looking at the types of injuries and injury patterns to see if we could make improvements in the crashworthiness, let's say, of aircraft. That takes a great deal of time, and I guess, for me, one of the most satisfying things was to see, as they began putting crashworthy fuel systems in the Army helicopters, while we were seeing fatal burns in almost forty percent of the Army helicopter crash victims, all of a sudden, once they started putting these fuel systems in there, those burn fatalities just went away. They just went from, like, forty percent to zero over the course of about a year.

Q: What was your and the AFIP's role? Did you just alert the helicopter designers that you've got a problem here, or were you talking about where and getting into more specifics?

DR. MCMEEKIN: Well, we worked with a lot of other folks. I mean, we weren't the prime movers to this, of course. The Army's Aviation Safety Center was at Fort Rutger, the Army Air Medical Research Laboratory, and a number of other organizations all working. And we'd have regular meetings where we'd exchange our data. We viewed ourselves as consultants to these other

investigators.

Q: Did you get involved in looking at the space program and safety in space at that time?

DR. MCMEEKIN: We had some involvement with NASA. For example, AFIP pathologists did the autopsies on most of the astronauts who died. Of course, most of them who died didn't die in space, they died in vehicular accidents or aircraft accidents.

Q: And there was that one case...

DR. MCMEEKIN: The Shuttle.

Q: Well, I was thinking of three who were...

DR. MCMEEKIN: That's right.

Q: White and...

DR. MCMEEKIN: Chaffee.

Q: Anyway, the oxygen caught, I think, within the...

DR. MCMEEKIN: Right, that's right.

Q: Were you involved, or did that happen before you came?

DR. MCMEEKIN: That was before I came here. Gene Colangelo, I think, and I'm trying to remember who else went down for that.

Q: As you moved into this aviation branch, what were the specialties or skills that you had to call on?

DR. MCMEEKIN: Well, they liked for people who were in the branch to be flight surgeons, so the first thing I did, en route from Walter Reed to the AFIP, was to go to the Army Basic Flight Surgeons Course at Fort Rutger, which was a nice seven-week break, marred only by the fact that I needed to be studying for my Pathology Board exams at the time.

Q: At that period, what were they training flight surgeons to do?

DR. MCMEEKIN: The flight surgeons did the basic physical examinations for pilots for certification examinations, and looked after their general health and welfare. They would fly with them, look for safety hazards, and just be a medical interface for the aviation units.

Now that really isn't pathology, but having knowledge of what was going on in the aviation

environment was important.

Q: Did you find yourself concentrating more on the Army side of aviation, or were you moving into both the Navy and the Air Force side of aviation? Was there any demarcation between these?

DR. MCMEEKIN: Ah, yes. Well, clearly there was a demarcation between them. I think being at the AFIP we had a more global view of aviation. The branch chief at the time when I came happened to be a Navy commander, so I saw a great deal of Navy aviation.

Q: Were you consulting with Walter Reed on aviation accidents?

DR. MCMEEKIN: Well, Walter Reed didn't get aviation accidents, as a rule, and since we were not in the Walter Reed building...once I actually became part of the AFIP, there really wasn't much connection with Walter Reed. And also at that same time there was construction going on for the south wing of the AFIP, and a lot of the AFIP departments were relocated to what was the old Bureau of Standards building down on Connecticut and Van Ness, which was kind of nice in many respects. Walter Reed at that time had the dial telephones and very few outside and long-distance lines, and so if we wanted to use the autobahn, which was the government's long-distance line, we would literally dial for hours and my fingers would get callouses on them from trying to get the outside lines. But down at the Bureau of Standards, we were hooked into the Pentagon's telephone system. We had touchtone phones--one touch and we had an autobahn line. So I wasn't particularly anxious to come back when the south wing was completed.

Q: What was your impression when you first arrived? This was what, about 1967ish, to the AFIP?

DR. MCMEEKIN: Well, I came to Walter Reed in '66. I actually transferred to the AFIP in the same building; I just moved down two floors, in 1970.

Q: What was your impression of how the Institute was administered at that time?

DR. MCMEEKIN: Well, that was way above my level.

Q: Well, but somebody's always looking around, and either the troops are grousing or else there are no particular problems.

DR. MCMEEKIN: Well, everybody was grousing. I guess I always admired the people who were in the front office. I'm trying to think who was the director in 1970.

Q: Bruce Smith, a captain in the Navy, was it until 1971.

DR. MCMEEKIN: Oh, yes, and I remember his interest in forensic medicine was in motorcycle accidents, so I saw a little bit of him in that regard. But I had very little interaction with the directorate, the people in the front offices.

- Q: Just sort of did your work.
- **DR. MCMEEKIN:** I did my work. Sometimes I might see the Army deputy, and I guess it was Colonel Hansen at that time.
- Q: Where did the aviation accident branch fit in the AFIP? Were you under a particular division or bureau?
- **DR.** MCMEEKIN: We were under the forensic division, and Dr. Pierre Fink was the chairman at that time. He was, you may recall, involved in the Kennedy autopsy. I always enjoyed talking with him; he was very intellectually inclined, shared an interest with me in amateur radio.
- Q: Did you get involved with any of the criminal elements of forensic detection?
- **DR. MCMEEKIN:** I never really liked the seedy side of pathology, you know, the rape, murder, mayhem on the streets. And I always viewed the aviation side as forward-looking, oriented toward safety.
- Q: I realize that the main operators were elsewhere, Fort Rutger and elsewhere, but while you were dealing with this aviation side, did you have any connection with people from industry-Boeing, Lockheed, Bell, or any of the people who made airplanes or helicopters?
- **DR. MCMEEKIN:** We would meet some of those folks in the course of meetings and whatnot, but in terms of direct contact, not very much. On the other hand, when we would go and assist the National Transportation Safety Board with investigation of airline accidents, we would have pretty close interaction with some of the airline people.
- Q: Were there any major airplane accidents, troop carriers going down, while you were there?
- **DR. MCMEEKIN:** We did usually on the order of maybe one or two a year. Nineteen seventy-four seemed to be a really big year. There was a TWA bombing case in the Ionian Sea, coming out of Athens, so we assisted with that one. Then there was another crash just west of Dulles. That was really fortuitous in the sense that it improved our relationship with some of the local state medical examiners. Dr. David Wiecking was, and still is, the chief medical examiner for Virginia. And it was probably my first opportunity to begin thinking about organizational flow for investigation of mass disasters. That wasn't that large; I think there were 92 fatalities in that crash west of Dulles.
- Q: Did you get involved in some of the developments in Vietnam? I'm thinking of the C-5 that went down with all the orphans there, in our final evacuation.
- **DR. MCMEEKIN:** We didn't go there, and technically that accident wasn't investigated, since it

was viewed as a wartime accident. There was not the same requirement to investigate military combat losses. But we did see the cases; we saw the photographs and, I think, ultimately saw the final file on it. It was quite interesting. If you recognize the C-5, you know there's the top deck where the flight crew is, and there's a little hump on the back where there's a passenger cabin. The whole lower section of the aircraft was disintegrated, but those two top humps kind of survived. The flight deck crew didn't realize, in fact, that the whole rest of the airplane was gone.

Q: How long did you keep in sort of the aviation side?

DR. MCMEEKIN: Well, I guess I was virtually involved in that until I left the AFIP. Certainly I was the branch chief until 1980, when I left to go the Armed Forces Staff College, but even then I remained involved with the AFIP. I had a congressional fellowship after the War College, but even then I was assigned to the AFIP.

Q: The War College, when did you go there?

DR. MCMEEKIN: That was in 1980, January till June. The Armed Forces Staff College, also known as the "Armed Forces Sports College." And maybe that's why it's no longer in existence. It was a good exposure to members from the other services.

Q: Speaking of which, when you were in the aviation branch, how was the aviation branch staffed-civilian and various branches of the military?

DR. MCMEEKIN: When I first came, I think there were at least 12 people. There were no civilian pathologists, as I recall, and the chief was a Navy commander. But very shortly after that, the Navy commander and I were the only people left. So we went from about a dozen to just a staff of two, and most of the work then fell on my shoulders. I guess it was in '72 the Navy commander, Dr. Colangelo, left, and I was left in a department of one. And gradually we began building the staff back up.

Q: This concentration, boiling down to one, why did this happen? Was there lack of interest, or was this such a specialized operation that it didn't need as large a staff, or what?

DR. MCMEEKIN: I never really knew for sure. My sense was that people were not happy with the way the department was going. I'm not sure everyone saw the value of AFIP, as a pathology organization, being involved in aircraft accidents, and what relevance it was.

Q: Well, the AFIP has this reputation of being in a way sort of the supreme court of medical problems that can be resolved in pathology. Did you find that you were getting specimens and all, say, from major domestic airline accidents, for example, to find out whether there was a medical reason for the crash?

DR. MCMEEKIN: We have over the years had a very close relationship with the National

Transportation Safety Board. And they would bring us difficult cases, and would, in fact, call us to assist them onsite with many of the accidents. When we went to the Ionian Sea in '74, for example, we went with the National Transportation Safety Board representatives.

Q: Could you explain a bit about what happened in the Ionian Sea disaster and what you did and how you worked there.

DR. MCMEEKIN: That was a case where apparently a bomb was placed onboard the aircraft, which had originated maybe in Beirut or somewhere there, and had stopped in Athens. The bomb may have been put on in Athens, but somewhere along the way.

Q: This was a TWA airplane?

DR. MCMEEKIN: This was a TWA flight. And then, roughly 45 minutes after taking off from Athens, it exploded. The explosion was witnessed by a Pan Am flight that was flying by. It crashed into the sea. Not much of the aircraft surfaced, but the bodies--and I think there were 30 or so people onboard the flight--surfaced. And so we were called on to see if we could find out whether there might have been a bomb onboard. We had the reputation at AFIP of being able to sort things like that out. There was a case years before, I'm not sure what airline it was, but coming from Miami to New York, and exploded over Virginia or North Carolina, and pieces of a clock were found in one of the bodies; it was part of the detonation mechanism. So we had the reputation of being able to determine whether bombs were onboard. So that was the question to be asked of us. But we also did the identification of the victims. And so that was an interesting case.

Q: Were you working with either the Italian or Greek authorities?

DR. MCMEEKIN: Well, since it was in the Ionian Sea, it was really an Admiralty issue. The U.S. Navy (and I forget which aircraft carrier group was there) did most of the recovery. The remains were taken to Athens, so we were dealing with Greek authorities. We also dealt with the Italians. We made one trip over to Italy, and I remember a late-night ride through the back roads of Sicily in the back of a pickup truck, trying to find various government offices.

Q: Did you find that the AFIP was well known by the foreign pathologists that you dealt with?

DR. MCMEEKIN: Oh, very definitely. In fact, we had had an exchange officer from Greece at AFIP while I was there, so that was a contact that I was able to reestablish, and it was very helpful.

Q: What did you find from this accident? Were you able to find bomb effects on the victims, or was this done elsewhere?

DR. MCMEEKIN: We did. They had a bomb expert, from England, I believe, who we worked with, and, in addition to the bodies, we also found panels from the wreckage containing small high-velocity fragments characteristic of an explosive device.

Q: Were there any other major developments, or even minor developments, in the technology of finding the results of aircraft accidents while you were at the AFIP? Because the technology keeps changing and all, I was wondering whether...

DR. MCMEEKIN: I guess the principal piece of new technology that we introduced, in addition to methods in toxicology being greatly improved... For example, we found out that alcohol that we'd been finding in tissue specimens could be produced by bacteria. In other words, postmortem production, not necessarily from crew members ingesting alcohol. But I began doing some mathematical simulations, computer simulations of crashes and what could happen to people inside aircraft with various types of seats and various types of restraints.

Kind of interesting, last week I found out that the computer program that we were using, which we had to go up to the Johns Hopkins Applied Physics Laboratory in order to find a computer large enough to run, and this program would take several hours to run on that monstrous IBM 360 Model 91 computer, a great number-cruncher which required 30 disk drives...

Q: This was when?

DR. MCMEEKIN: This was in the early seventies. I found out that I can now run that on my personal computer.

Q: These things are real shockers as this develops. What about connections with other people doing similar work? Off camera you had mentioned working with the British on this.

DR. MCMEEKIN: Well, we've had a close relationship with the British. Not on the computer simulation, but in 1954 the Joint Committee on Aviation Pathology was formed, and that was with representatives from the three U.S. military services--Army, Navy, and Air Force--with the British, primarily the British Air Force, and with the Canadians. They would meet on a regular basis to exchange information, rotating scientific sessions between the three countries, and that was a good exchange. So that interaction was good.

Other organizations within the United States. Of course, we had close relationships with the military safety centers. I had already mentioned the Army Safety Center, but the Air Force and Navy also had similar organizations where they collected their accident data. And also with the research establishments. And in particular with the computer simulation, we worked with the Air Force Research Laboratory at Wright-Patterson Air Force Base.

Q: *Did the computer come in relatively early for your work?*

DR. MCMEEKIN: I guess it was my first or second year here I went to a course on mathematical simulation at the University of Michigan. And while I was there I met a number of contacts, in particular from the National Bureau of Standards. The National Bureau of Standards testing laboratory for tires and restraints and things like that was transferred one block, from the Bureau of Standards to the Department of Transportation National Highway Traffic Safety Administration.

And so I would spend a lot of wonderful times with them, watching their crash tests on their sleds.

Q: With the computer, where would you say AFIP stood as far as absorbing new techniques? Because the computer, while you were here, really almost literally became part of our life. It really hadn't been. During the late sixties there were big, big computers, but there really wasn't much in the way that was particularly helpful to medicine and all that. So you saw the complete growth of it. How receptive was the AFIP, and where did it stand on the computer?

DR. MCMEEKIN: Well, the AFIP was a leader, in my estimate, in terms of database in compiling the cases. The computer that we had when I first came was an IBM 360 Model 30, with, by today's standards, not a lot of memory but a tremendous number of disk drives. At that time, the amount of disk storage on an individual disk drive wasn't that great. In my recollection, it was about 4 K, which is minuscule by today's standards, of course. And data retrievals from the numbers of cases that we had (I think it was probably about a million when I came) would take hours. There was no direct interactive request for data. We would fill out forms, and the data processing people would process them. The results we would get back might not be exactly what we thought we had asked for, and so there was that communication problem. But it was not the interactive terminals; the interaction was done with teletype type terminals, with a keyboard and printer, or with punchcards.

Q: Well, in those days, I take it, as with many other places, there were sort of computer personnel and other personnel, and you had to go through this sort of priesthood, and it didn't always work very well to make it clear what you really wanted. It was a different world.

DR. MCMEEKIN: Yes, it was different.

Q: When did the computer start coming in, maybe if not on your desktop, at least into the office so that you could, as the terminology is, interface with it more personally?

DR. MCMEEKIN: Well, certainly that didn't happen until the eighties. I remember, and it must have been in '70 or '71 or '72, shortly after I got here, there was...I guess by today's standard we would consider it a calculator; it in fact was a computer, though. It was an Olivetti which you could actually program; it was one of the first of the programmable calculators. And I forget, it was about \$3,000. I really wanted this, to do some of the mathematical calculations, and I couldn't get it. It was expensive, and it was new technology. But it wasn't until the eighties that we really began getting computers in.

Q: What about other equipment? I'm thinking of lasers, electron microscopes, and all this. Were these particularly useful in your field, or were they for somebody else?

DR. MCMEEKIN: Well, there was laser research going on here in the sixties. I remember seeing the signs of eye hazards. But in terms of electron microscopes, lasers, and things of that sort, in the accident investigations we really weren't doing much with that. There was interest in laser eye

injury, but we would look at the light microscopy of that, primarily.

Q: Did you get involved in some of this high-speed work? I'm thinking of these jet sleds and things like this, because of the effect of high speeds on the human body.

DR. MCMEEKIN: Most of that work was done in the fifties and early sixties. Dr. John Paul Stapp and the rocket sled, of course. (I just saw him a couple of weeks ago, in fact.) By the seventies it was very difficult to do human or animal work. We were doing some work in our altitude chamber with eagles, but even that was gone by the mid-seventies.

Q: So you were pretty much left with the remains, is that right?

DR. MCMEEKIN: That's right, yes.

Q: What about the training side of your work? Was there a market for you to give lectures or train people who were going to be involved in aircraft accident investigation?

DR. MCMEEKIN: I and members of the staff would give lectures at the various military flight surgeons courses. I mentioned that I had been to a flight surgeon course; well, part of that curriculum would be how flight surgeons were to participate in aircraft accident investigations, and the flight surgeon would be a member of the investigative board. We from the AFIP would be their consultants, so we gave them about eight to ten hours of how do you investigate an aircraft accident from the pathology injury standpoint. We put on a course here at AFIP, but it wasn't until the eighties, I guess, that we began going to England and to Canada to lecture to their flight surgeons.

Q: What about other members of NATO? Did you get involved with the German pathologists dealing with NATO forces?

DR. MCMEEKIN: We had very little interaction with NATO. We put on a course/meeting/seminar for AGARD, the Advisory Group for Aerospace Research and Development, which is a part of NATO. And we did that in Copenhagen in the mid-1970s. My sense was that AGARD was very jealous of JCAP, the Joint Committee on Aviation Pathology, because JCAP had these scientific meetings every other year in the international arena, and I think AGARD viewed themselves as being the international experts. The difficulty with AGARD was it was so many member countries, if they ever wanted to get any problem resolution, they could never reach consensus. So it was a good forum for sharing information, but not necessarily one for getting resolution. In addition to JCAP's scientific sessions, which were every other year, they would have meetings two, three, four times a year, executive sessions. And from those, particularly during the times when I was the secretary, we'd publish memoranda where the various organizations would bring a question for resolution, and we would debate it and come up with a consensus. Difficult enough to do with not only three services but two other countries involved. But, gee, I think you might imagine how difficult it would be with AGARD.

Q: This happens very often when you're dealing with a series of nations. We often end up in sort of a little triad of the Canadians, the British, and the Americans, together. One, obviously, is a common language, but also the practicality--the more you have, the more complicated it becomes, and the harder it is to have more than a very pleasant meeting where everybody is being nice to everybody else.

DR. MCMEEKIN: We were on very cordial terms, though, with some of the NATO...Dr. Seigcreft from Germany. In fact, he usually came to our JCAP meetings and presented papers. Representatives from Norway would come. We didn't see a lot of the French at our meetings. They were certainly in evidence at the AGARD meeting, however, in Copenhagen.

Q: There is a series of elements to the Armed Forces Institute of Pathology. One is consultation. Another one is education, which we've talked about. And another one is sort of the Museum. Did you get involved with the Museum at all?

DR. MCMEEKIN: Well, you were bringing up the triad, you didn't really get the triad. It was consultation, education, and research.

Q: Oh, research, okay.

DR. MCMEEKIN: Right. A lot of people view those as separate entities. And during my time here I began to really see how those interrelate. And, particularly, people would ask me what my priorities were, which one of those is more important. And I would tell them it was like a three-legged stool, you take away one of those and the organization doesn't stand. I've carried that model elsewhere, and I think that there is a model for a healthy organization, if you will. That unless you've got a reason for being in law, like if you're the tax collector, well, it doesn't matter whether you do research, you just collect the taxes. (That may not be a good analogy, because I really hadn't thought about that.)

But, anyway, it's a cycle of consultation, education, and research. And you can jump into that at any point, but let's just pick one point, let's say, consultation. A consultant provides information to a consumer, and once he's provided that information, the consumer no longer needs him, unless the consultant then does research to get some new information. Having got that new information, then there needs to be some way that it's conveyed. And that's often done by education, publishing the papers, putting on courses. And then, having gone to that course, of course then you're an expert about it, you know all about it. But sometimes there's a question that you don't know the answer to. And who do you usually go to ask if you don't have the answer? Well, probably your mentor or teacher. And so you come back, and now we're back in the consultation role.

Not only individuals, but I think all healthy organizations do those three things. If you take away any one of those, then the cycle will fail, the organization will ultimately wither and die.

Q: Did you find any problems while you were here of the waxing and waning of interest in research? Because consultation is almost a constant, the stuff keeps coming in, but the research, I

can see where it could be considered by somebody who was trying to cut corners or save some money as being maybe something which you deal with. Did you see any problems with that as time moved on?

DR. MCMEEKIN: There was no question the cases kept coming in. And a lot of the staff liked doing those cases. I mean, they're fun, they're interesting cases, they're the most challenging cases, very academically stimulating. And I think, without exception, everyone on the staff was doing research. My problem was that, often, having done the research, it didn't get published. Now that's an overgeneralization, because certainly a lot of the staff have been very prolific, but when I came as the director, we were down to a very small number of publications; I think on the order of a dozen publications a year. So I really began emphasizing the need to publish the research that was going on.

Q: Why do you think the publications had been falling off?

DR. MCMEEKIN: Well, there wasn't the emphasis on publishing, I think. People were still doing the research, they were adding to their own personal knowledge, and that was being conveyed in the consultations. But in terms of our marketing strategy, getting our name before the general medical public as experts about the leading edge, we weren't doing that. We were getting the same old customers back.

Q: I would think that the publications would be an extremely important source of getting more consultations. And if you write something about something, then other people will say, "You know, I read something about this, does this fit in?" In other words, sort of hand washes hand. You need to have this. Wasn't this a problem when you stopped the publications?

DR. MCMEEKIN: We were getting so many cases, I don't know that we could say and prove that we weren't getting some body of cases. I think we were missing out on some of the interesting cases.

Q: Did you find that any other institutions were developing an expertise in the field of accident pathology?

DR. MCMEEKIN: We didn't really have much in the way of competition. There weren't that many accidents. Most of the investigations that we were concerned with were the military fatalities. Now many of these deaths would occur in a civilian jurisdiction, and they would come under the purview of a state medical examiner or maybe even a local coroner, and there was, particularly early on, some tension. They would view a competing interest, that they had to do their job, protect the state against the big government. And this accident, who knows what might have been the cause. It wasn't until we began developing a more cooperative relationship with them that that began to ease.

Q: From your perspective, how was a more cooperative relationship developed?

DR. MCMEEKIN: Well, I mentioned the accident in Virginia and Dr. Wiecking. Here he had 92 fatalities on his hands. His entire medical staff consisted of himself and two or perhaps three other pathologists, faced with an overwhelming task of a large number of bodies to handle. So they called us to provide some assistance; actually, after some prodding by one of the medical officers from TWA who happened to be a Naval Reserve flight surgeon who knew about AFIP and called us right away, because I think perhaps we had worked with him on some Navy accidents. And on the basis of his insistence, we worked then with the state medical examiner. It turned out to be a very good working relationship, and that model served us as we began working with other state medical examiners and coroners. We began going to the medical examiner meetings; word began getting around. They began getting a lot of their state laws changed, and it worked out very well.

Q: Well, then back to a question I asked before about the Museum. The Museum has always been somewhat of a stepchild of the Institute, but also the best-known element of the Institute.

DR. MCMEEKIN: Well, that's arguable. Arguable.

Q: To the public. I won't argue on that. But, anyway, I'm thinking of particularly in the early years of the Institute when it was the Army Medical Museum and was down on the Mall. How did you see the role of the Museum, not when you were director, but working on aviation problems?

DR. MCMEEKIN: Well, I've always loved the Museum; it's been one of my favorite parts. I'm talking about the public part here. When I came to AFIP, we had an aircraft-accident exhibit in the Museum. And I think most of the departments were responsible for an exhibit.

That interest, though, began to wane, and a lot of those exhibits began to fall into disrepair. I think the Museum had limited funds to keep those exhibits maintained. A lot of the staff members, for whatever reason, spent more time with their cases and less time with the Museum. And the Museum, we're talking about the public display.

But I've always viewed the AFIP as a museum, you see. People talk museum, well, generally they're talking about the public part of the museum. You really can't separate it from the Institute. Things that get collected here have to be stored somewhere. It's been convenient to, I guess, put them on public display. The microscope collection is a beautiful collection of things to see. And even if that were separated from the Institute... And it wouldn't be the first time that something like that had happened. The National Library of Medicine, for example, started as the surgeon general's library, because the pathologists recognized the value of books and a library. Obviously, there are plenty of other people that need books and libraries, too, and so that was partitioned off. We still have books and libraries. People who have been in the forefront of medicine have wound up at the Museum. Holruth and his computers, and things like that. Things have been picked up that were orphans and carried on until people recognized their value. Right now I think we're going through the recognition of the educational value of museums. And it wouldn't surprise me to see some of the educational aspects of medical museums pulled away. I would hope that wouldn't happen, but it might.

- Q: What type of exhibit did you work on when you were dealing with aviation accidents?
- **DR. MCMEEKIN:** The exhibit that I worked on putting together was...I forget what the narrative was, but I remember the graphics vividly. It was three images of an aircraft headed towards the ground, one-two-three, alternately lit so it looked like you could see it was moving down rapidly. And it talked a little bit about the types of things we've looked for in aviation pathology. There had been an exhibit there before, but I can't remember what that was.
- Q: Well, we'll come back to the Museum a little later when we talk about your time in administration. Did you ever find efforts made to say, well, aviation pathology is interesting, but maybe we ought to be somewhere else? How firm was your particular branch within the AFIP while you were here?
- **DR. MCMEEKIN:** I'm not aware of any initiatives to put us elsewhere. We were part of an overall forensic pathology organization. There were a lot of folks within the Institute who I think felt that this wasn't really pathology, but they thought it was kind of neat when we went off and did these accidents and brought the pictures back, and there was a certain amount of morbid curiosity about that.
- Q: But I was just wondering whether they might say, well, you know, in a way you're almost too action oriented, or something like that.
- **DR. MCMEEKIN:** No, I never felt that. I always felt I had good support from the Institute. Of course, we had to compete for funding and space, and we were often, I felt, on the bottom end of that. But we didn't cost the Institute very much; we had a limited amount of space and not a very large staff. We were able to get money from outside organizations, and so that seemed to count for something.
- Q: Well, then moving from that, looking at your progress, when did you finish being sort of in charge of the aviation accidents?
- **DR. MCMEEKIN:** I guess, in fact, it was probably 1980, although strictly speaking I guess I was involved until probably '82 or '83.
- Q: You said you went to the Armed Forces Staff College, and then what did you do?
- **DR. MCMEEKIN:** I spent two years as a congressional fellow.
- *Q*: What were you doing as a congressional fellow?
- **DR. MCMEEKIN:** Well, basically I worked in a congressman's office. It was Congressman Joe Adabbo, a Democrat from New York who was chairman of the Defense Subcommittee on Appropriations, and who was generally viewed as being very anti-military. So I went to work there

with great trepidation. But after I got to know him, I at least began to respect him for some of the things that he did, and to realize that he was process oriented, and that the military often didn't do itself justice when it testified before his committee.

Q: Could you explain a little about this. When you say `process oriented,' how did that not mesh with the military's presentations?

DR. MCMEEKIN: Well, I remember times where the military would come before his committee asking for money (I mean, that's usually why they would go to Congress), and he would say, "Well, you need this money to fix some kind of problem," and they would say, "Oh, no, we don't have any problems." And so he'd say, "Well, if you don't have any problems, then you don't need any money." Or, on the other hand, people would come and say, "We need money because we've got problems," and he'd say, "Well, gee, you've got problems, well, we can't have that, and so we're not going to give the money."

Q: Did the Pentagon treat you as a mole within this money organization, that somehow you would be used to ferret more money out? How were you treated by the military?

DR. MCMEEKIN: Well, I'm not really sure how to answer that. I was certainly viewed with some skepticism. Not everyone at the Pentagon, of course, knew who I was and why I was there. I mean, yes, they knew here was this military member who was on the Hill. Anytime something would come out of Defense Appropriations, they would say, "Well, McMeekin's had a hand in this." Whereas, more likely than not, I didn't. But I can't say that I was lobbied terribly heavily.

I do remember on one occasion, though, that I was followed by what in retrospect I think were probably some DOD people, to see just exactly where I was going. They followed me all over town one day. And I finally went down one of the Metro escalators, immediately turned around and came back up and went past them, and I waved to these two fellows. So they didn't follow me any more after that.

Q How did you find the view of the AFIP in Congress, from what you could gather there? How did it fare?

DR. MCMEEKIN: Most people had never heard of it, frankly. And Mr. Adabbo certainly hadn't heard of it. Pathology was probably farthest from their mind. Dealing with death and dying, that's not the type of thing that Congress likes to talk about. But, usually, if we had a chance to sit down and explain what was done, and particularly the things we did for their constituency, we had a very good hearing in Congress. When they heard from their constituents about the things we did for them, that was probably the best thing.

Q: Well, after you finished this fellowship, that was what, about '82?

DR. MCMEEKIN: Nineteen eighty-two or three.

Q: Then where did you go?

DR. MCMEEKIN: Then I came back to AFIP to be the deputy director.

Q: Who was the director when you came here?

DR. MCMEEKIN: Dr. Ray Cowan was the director.

Q: Now he was a colonel in the Air Force, is that right?

DR. MCMEEKIN: Right.

Q: What does the deputy director do?

DR. MCMEEKIN: Well, I guess the short answer is: Whatever the director wants him to do. But in fact the directorate here, in a sense, is three heads. There's an Army head, a Navy head, and an Air Force head. Now clearly there is a director who is *the* head, but styles and interests vary depending upon the mix of interests that you have in that triumvirate. So it's not always easy to predict how someone will be as director, based upon their past career, once you put them into the mesh.

Q: What was Colonel Cowan's main interest?

DR. MCMEEKIN: I think he was a basic general pathologist. He had come up through the Air Force, running laboratories. A very good general pathologist, from what I could tell in dealing with him. He and I had had a pretty close relationship over the years. He had had some interest in, and in fact he had done, some accident investigations as an Air Force pathologist. And he was here for a long time as the Air Force deputy. He was in fact often the person that we in aviation pathology would turn to for support.

Q: Did he have a hand in picking you, do you think, knowing you and all?

DR. MCMEEKIN: I don't know how I got picked.

Q: I mean, later you were director, did you have a hand in picking who would be deputy directors?

DR. MCMEEKIN: Well, yes, I did seek out the names, and I talked to some people and interviewed them. I strongly pushed for Dr. Stockard to be the deputy. He, of course, had been at AFIP for a while and was academically oriented and well known and respected.

Q: Did you concentrate on any particular fields when you were deputy director?

DR. MCMEEKIN: My areas were the education, Museum, illustrations, accessions areas.

- Q: How did you find, when you were dealing with it, the education field? Where was it, sort of as you saw it, when you came in? This would be what, about 1982? Where did you see the strengths and weaknesses as far as the AFIP dealing with the educational side?
- **DR. MCMEEKIN:** I thought the education program was pretty strong. I wasn't sure that we necessarily marketed our education program as well as we could have, or that we had a close enough working relationship with some of the organizations that supported our registries. We collected this series of cases in registries, and I wasn't sure that we gave the same quality back to some of the organizations that we were getting.
- Q: Was the publication both of papers and fascicles a major effort on the education side at that time?
- **DR. MCMEEKIN:** Of course, everyone likes the fascicles, and they are well known around the world and a top quality publication. Finding authors was a challenge. Seeking out a new editor for the fascicles was a challenge.
- Q: Were there any particular areas where you were directing? Did these fall under your jurisdiction as part of the education program?
- **DR. MCMEEKIN:** Well, the fascicles were pretty much a personal interest of Dr. Cowan's. While I was involved with that and would make recommendations to him, he had worked with the fascicles for a long time, and he took a lot of personal interest himself in checking the color match for the photographs to see that they were true colors.
- *Q:* How did you find the illustrations side of the Institute?
- **DR. MCMEEKIN:** Top quality. Always has been. State of the art. We, I think, prided ourselves on having anything that Kodak had, you know, we could do here. Well, I think, as technology has made leaps and bounds in the computers and whatnot over the last ten years, that we've perhaps fallen a bit behind there. But nonetheless, I think, from the hands-on quality of what people do, it's top of the line right now, even.
- Q: Did you have problems staffing, getting the right people?
- **DR. MCMEEKIN:** Well, I guess yes and no. There are always people who want to come to the AFIP. And, of course, there was the challenge of could we pay them enough. But, certainly, top-quality people were anxious to come. And I've always said that give me a better-than-average pathologist, and bring him or her here for two years, and we'll make a world's expert out of him.

Q: Why is this?

- **DR. MCMEEKIN:** Oh, it's just the collection of cases, just being around the cases. I mean, unless you're blind, you're going to see the value and become a tremendous source of knowledge.
- Q: Were you able to sponsor more papers while you were deputy director, or did this have to wait until later?
- **DR. MCMEEKIN:** I began talking about the need to publish more papers. I don't know whether we actually began pushing as hard until I became director. I guess, the year before I became director, there were only a dozen or so publications, and we greatly increased that to 150 or so in a year, and that continued to increase even after I left.
- *Q*: How does one bring about the increase?
- **DR. MCMEEKIN:** Well, it was a matter of talking to the staff and explaining to them the importance of doing that. And emphasizing to the support staff the importance of supporting the authors in getting the papers done. We had an editorial office, the reputation was that it took forever to get papers cleared and that the editors didn't like my prose, you know, the matter of who's going to edit my prose. Well, so we had to do some education of the staff that it was all right to have non-medical people editing medical papers, that one didn't have to take the editor's comments if they changed they intent. And I think once we got over that hurdle particularly, it was okay. And the editors, you know, needed a pat on the back, too, because that was really kind of a thankless job. Only one, two, or three people to do all those papers, a tremendous workload.
- Q: Did you, while you were a deputy director, find yourself acting sort of as intermediary between the director and some of the branch chiefs? In any organization you've got people who've been running things at the branch or department level, and they've been running them their way, and a director comes in and wants things, a little more coordination, and it's always a very difficult situation. Did you find yourself running against some personality problems or ego problems or something like that?
- **DR. MCMEEKIN:** No, I can't say that we had ego or personality problems. Certainly we've got some very strong personalities here in terms of world-class experts, and a new person coming on who doesn't have the advantage of having seen what's gone on before...I mean, we have some members of the staff who've been here for fifty years, and they've seen a lot. So I guess one had to resist the temptation to make radical changes. But, on the other hand, there were changes that needed to be made.
- Q: Of course, you do have something built-in to this organization as a system that is unlike most other institutes, where most people come from the field, and usually serve, such as yourself, as a deputy director for a while, and then move up to be director, so that there is a much greater continuity. It's not the outside expert coming in, who is going to change the entire universe; they've been acclimated to the system.

You served as director from 1984 to 1987. You'd been watching this from various

viewpoints, what did you want to do? What was your main thrust, your main focus?

DR. MCMEEKIN: I had four things on my list.

I was interested in quality. And in that regard, we went after and pursued the first accreditation of the AFIP by the College of American Pathologists. That had never been done before. Quality.

Timeliness. It had gotten the reputation that it could take months to get a report out of the AFIP. Much of that was because of difficulties in accessioning cases. At every stage it took a long time. So we began systematically finding ways to get the cases accessioned into the Institute and onto the doctors' desks as quickly as possible. And once we'd done that, we could then begin saying to the pathologists, look, we're now into the real world where we can in fact provide state of the art. We emphasized and began making available more accessible telephone consultations. So timeliness was important.

Individual responsibility. I emphasized getting the decision-making down into the departments. I tried to free-up the individual pathology staffs from the administrative overheads, and we created associate directors. The intent was to relieve a lot of the administrative burden. I'm not sure that that actually happened, but that was the intent of doing that.

And, finally, to develop a marketing program for getting AFIP more visible.

Q: Okay, well, really, let's talk about a number of the things. On the administrative side, how did you find developing the civilian staff at, you might say, the clerical/secretarial level? This sometimes can be the most difficult. You can get worldwide experts, but if nobody can type it up for them and really understand the jargon and all that, you're seriously hampered. Was this a problem for you?

DR. MCMEEKIN: The AFIP's always had to compete salarywise with some organizations in Washington who pay higher salaries. I guess I look at that philosophically, because we could easily get into an escalating salary spiral: if we raise ours, they raise theirs, and it just gets passed on. We've gotten very capable, competent, dedicated support staff at the Institute. I mean, look at people who've been here for years and years and years who've had opportunities, in fact, to take higher-paying salaries, in many cases even more conveniently located, and have elected not to do that. They're just as valuable as the pathology staff.

Q: Oh, absolutely, absolutely, an essential element.

DR. MCMEEKIN: And we began trying to recognize them. On the quality side, as deputy, one of the first things I did was any time there was a typographical, even a minor typographical, I would send it back. And I think I got a black mark from a number of the staff for that. But once they began realizing that this was the image conveyed outside the Institute (and for many people it was the *only* image of the Institute), they began correcting it, and our error rate on the number of letters that got sent back went from, like, sixty percent down to, like, one percent. And it was okay then. People were taking an interest in the work that the support staff, the typing people, the secretaries were doing, and so that was good.

Q: On the timeliness side, how did you spur individual branches to be more timely? Because I'm sure that you would have a difference in attitude by the top person in one branch as opposed to another, and to get everybody sort of marching on the same timeframe, how did you work on that?

DR. MCMEEKIN: Well, there was a little haranguing involved. We had to get past the initial finger-pointing stage, which was: "The problem is not with us in the departments, the problem is with accessioning." So we first had to deal with the accessioning issue. But then we began talking about the impact on patients; we had a number of talk sessions where we went through that. The staff was trying to provide good-quality service, so it came, slowly.

Q: What about the younger staff? Sometimes when you have world experts at the top, they can be sort of overwhelming to young people coming up, and yet you have to develop the younger ones. How did you work with them?

DR. MCMEEKIN: And where do you cross the line from being a good pathologist to a world-class expert, particularly when you're in the shadow of a world-class expert.

Q: Oh, yes. Oh, yes.

DR. MCMEEKIN: And that was a tough challenge. Not everyone on the staff reached the point of realizing the satisfaction from having their students do well, in fact do better than them on occasion. And we worked through that a bit. It was difficult. A lot of our senior pathologists liked their cases, liked being *the* expert. And so we talked about our role as educators, bringing people along, training; that it was in fact good to have a second expert, because that meant that you could take off and go to meetings and do some of the more fun things. But, of course, then we had to convince them that there were other fun things besides looking at their cases.

Q: What about the Museum? During your time, what was the status of the Museum?

DR. MCMEEKIN: The Museum was...well, I don't want to say neglected, but it was without a director, a frequent source of cost-cutting when budgets were tight. And it was on a self-fulfilling prophesy that museum attendance was going down, therefore there was less demand for it, so it would be okay to cut it more.

The Institute is a museum. The Institute is a collection of cases, and that's the material that's on public display. We have an obligation to the young people and to the country to get people interested in medicine.

Certainly not a week went by at AFIP without a physician coming in and saying, "You know, I got interested in medicine because I wandered into that old museum down on the Mall."

It didn't seem to me that we were going to go back to the Mall anytime soon, if ever, but we needed to do something. The morale of the staff in the Museum was very low. I remember having numerous meetings with them where I told them, "Look, you all are experts in the museum field. You look to me for leadership; well, I can't tell you what to do. I guess I'm your leader until you get

a director, but you know what needs to be done, so start doing it."

"Well, we don't have the money, we don't have the people, we only have one exhibits' specialist."

And so I said, "Okay, well, just begin doing them one at a time, and we'll begin highlighting those things."

I looked for opportunities to feature the Museum. And so when we started the Ash Lecture, in fact one of the recommendations was that we should have it at one of the hotels where we could have a larger crowd of people. Well, I said, "No, Colonel Ash *was* the Museum, and we should have the Ash Lecture in the Museum."

Q: The Museum was here.

DR. MCMEEKIN: Right here, that's right. And the staff there took that challenge. And we developed a docents' program and began growing again. The attendance began going up, and I could begin justifying putting more funding in there, and it gradually has begun to grow. I appointed a blue-ribbon panel to look at the future of the Museum. They were looking to get a national figure to head this, and I thought they were looking at too low a level. I was very fortunate that the undersecretary for the Department of Health and Human Services had been a law school classmate of mine, so I asked him. And, of course, as senior in HHS, Dr. Koop was part of that organization. He was the surgeon general of the Public Health Service.

Q: He was not only the surgeon general, but also a very mighty figure in the Washington ranks in those times.

DR. MCMEEKIN: That's right. That's right, and a tremendous educator, and interested in children, and he recognized the value of museums. Well. Mr. Newman, who was the undersecretary, was a pharmacist, and, of course, pharmacists have had a very good perception of history, and have collected things and displayed them. So not only, I think, as a personal favor, but because he understood the value of that, he agreed, at great expense on his part, because he had tremendous demands on his time as the undersecretary. And he always came out and chaired those meetings himself, as opposed to delegating it.

Q: So what developed while you were here? Did you get a new director?

DR. MCMEEKIN: Yes, Dr. Micozzi was appointed as the director. He is certainly very capable and has a lot of vision, a lot of ideas. We put together a foundation to begin looking for opportunities for the Mall, and had trustees, I guess. Dr. Koop is chairing that foundation now, and a lot of national figures from American medicine are on there. As I understand it, the Board thinks that they have found some possible sites in downtown Washington for the Museum displays.

There is some tension there on the Board. Some folks think that the Museum should be separate because DOD hasn't taken good enough care of it. Which was the reason for my earlier comment that it wouldn't surprise me if perhaps some of the current public exhibit displays might go elsewhere. My sense is that the bent of that Board is on the education side. And I'm not sure

how a museum like that could sustain itself in consultation, education, and research. What would be their source for continuing to get display materials? So even if a museum like that were put elsewhere, the AFIP would still be a museum; it would be collections of cases. And it wouldn't be long before there would be another collection of cases just like what there is now.

Q: On the education side, but not the Museum side, were you able to make any developments on educating people coming to the AFIP?

DR. MCMEEKIN: Well, the attendees at courses more than doubled while I was here, because we began marketing, putting our advertisements in the journals, not relying just on word of mouth. Some of the courses were already doing advertisements like that, but we began making a point of being sure we got our ads out.

Q: Was there some resistance, you know, doctors don't advertise, or something, at the AFIP?

DR. MCMEEKIN: No, I don't think so. It's just something that hadn't occurred. So I guess it was just a focus that I began bringing.

Q: Did you try to make any change in emphasis on either the things that you were training or the people who you were training?

DR. MCMEEKIN: I began particularly focusing on what was the future going to be. I'm not so sure whether, a hundred years for now, for example, we'll be using light microscopes. We see a lot of technology coming into medicine that's being applied by non-pathologists, by internists, radiologists. So we need to be on the forefront of that. Things like image analysis is just one example. So I began looking for this new type of technology.

Some of the staff, I think, felt that, well, that was my thrust and that I wasn't interested in histopathology as we'd been doing it in inventory. That was not the case. I mean, that was our bread and butter, but I was looking for things that would challenge and stimulate the people who were funding us.

Certainly, as you look to DOD, and you tell the Department of Defense that we're an institute that does 60 percent of its work for civilians, that we look at pathology tissues, they can say, "Well, gee, shouldn't that be done by the VA or the Public Health Service, and why can't you contract with a university, in fact, to do those consultations?" So we had to find the ties that would connect with them. And the connection there was often forensic pathology: ballistics, aircraft accidents, diving, and things of that sort.

We had a connection with the Veterans Administration. So we had to figure what is it that our customer, the Veterans Administration, wants. And, of course, they were looking for the consultative services.

And we were looking to the civilian side, through the registries. We really never had marketed those registries. We sort of stood back and the professional associations would give us money--small amounts of money in many cases, because they didn't get much in return. So we began talking about what it was that those organizations reasonably should expect to receive, and to

try to provide that.

Q So you expanded the registries, the publication of the...?

DR. MCMEEKIN: We pushed for that, and most of the registrars responded. Several, I think, weren't particularly interested. For example, I felt that our registrars should go to the professional meetings of their sponsoring associations, and maybe put on courses or present papers there so that they became visible participating members. Not all the registrars were willing to do that.

Q: While you were with the AFIP as director, was there a long-term problem that caused you the greatest headaches?

DR. MCMEEKIN: I guess the biggest anguish that I saw was the need for more space. Technology requires space. You bring in a personal computer, for example, and you think, well, that only occupies about four square feet on a desktop. But that's not the case. By the time you figure the entire work area, you're talking about probably ten square feet. Then you have to have training areas. You have to have maintenance areas. So you're winding up, actually, with a fair amount of space requirement just for a personal computer, and for bringing in electron microscopes and all these things that had never been heard of when the building was built.

The building itself, with the bombproof construction, posed a problem. If we wanted to run cable, let's say, for a computer network, it might take weeks to drill through one of those walls. Literally.

Speaking of drilling, adding on the south wing, I was in what was called the bubble, the windowed area which was at the south end, just as it is now the bubble on the north end, and they had to actually blast through those walls. They would sound the alarm when they were going to blast, and we would have to leave our offices because they were blasting literally just 20 feet below my office. I remember seeing one member of the staff about that time who was walking around with terrible black eyes, and I was really concerned that his health might have gotten bad. I asked him about it finally one time, and he said, "Well, you know, you're down at the south end and you can hear these sirens as they're getting ready to blast, but my office is at the other end, and if I happen to be looking through my microscope when they blast, the building is one solid piece of rock and the whole building jumps, and that microscope bounces up and hits me in the eyes."

Q: This is a list of the former directors. Just to get a little feel for how it was, I wonder if you could give me a thumbnail sketch about the ones that you've dealt with and how you felt they operated.

DR. MCMEEKIN: Well, I think that I've met everyone, Colonel Ash and following, except perhaps Dr. Silliphant. I don't know that I ever met him.

Colonel Ash, I had a great fondness for. He lived not far from me, and even though he was quite far up in age, my daughter and I would go and visit him on occasion. My first recollection of meeting him, I think, was actually...I don't remember whether it was his birthday, but it was about 1970, because the Museum had already been built. He came into the Institute on two occasions and

made brief appearances. But after that, I didn't see him, I guess, until I became director, and at that time he was nearly 100 years old. My daughter and I would go down. His memory was beginning to fade in and out by that point. At least people said that it was. You know, he would talk about the Indians down on the Potomac, and I guess it was Dr. Oscar Hunter who told me that in fact Dr. Ash was part of the marshall's posse that evicted the Indians from the reservation down at Arlington years ago. Colonel Ash knew that I was interested in aviation accidents, and I remember once he said, "Oh, yes, I investigated an aviation accident once." He told me the year, and I thought, you know, that's quite a long time ago, I'm not sure there were many airplanes around then. But he went back to his room, and he came back shortly thereafter with an autopsy report that he'd written--on a balloon accident up in Pennsylvania.

General Blumberg, shortly after I became deputy director, I guess, came to me, grabbed me by the collar, and said, "Mack, what are you going to do about Colonel Ash?"

I was a bit taken aback. I didn't think I needed to do anything about Colonel Ash.

And he said, "Well, you know, he's going to be 100 years old soon."

And I said, "Well, yes."

He said, "Well, you ought to do something!"

So I guess the thing that I decided to do was to create the Ash Lecture program.

Q: What is the Ash Lecture program?

DR. MCMEEKIN: It's an honorary program. We select someone to come and give the lecture. We decided, as I said before, to actually have the lecture presented in the Museum. In the first ones we were, and we actually had a reception there. Now, I think they're having the reception in the Museum, but the lecture is actually given in a slightly larger auditorium across the street. And I think there is an honorarium that goes with it and a plaque. It must be six or seven years now that we've been doing that.

Dr. Dart, I only met.

Dr. DeCoursey, I met. He called me once, I think, when I was deputy, to give me some advice about something.

Former directors don't often call. It's sort of an unwritten rule that once you're gone, it's not your turn in the box, you don't meddle. And I think that, without exception, the former directors did that. And yet anytime I wanted an opinion I could easily call them up, and once that door was open, of course, they were very free with their opinions.

Dr. Townsend, I never heard of, actually, until we began looking for a replacement for General Blumberg, who was on the Board of Governors. We began looking around for who had been very active, who we thought the Board of Governors would accept readily, and we called Dr. Townsend and began working with him. Of course, he was very active. Before me, I guess he was the youngest director of the Institute, viewed as forward-thinking, and so we thought he would be a good representative to the Board of Governors.

General Blumberg, of course, I think, very active as a director, and was on the Board of Governors for years and closely associated with the Institute. Very supportive.

Captain Smith, when he left the Institute, I think, went to be the chief of pathology at the VA Hospital here in Washington, and would come back to AFIP courses on a regular basis. He

was also very supportive.

Dr. Morrissey, after he left, was very seldom seen. I guess he came back through on one occasion. He and his wife, I think, had an RV (recreational vehicle) that they were touring the country in, and came by. Seemed very relaxed. I didn't know him very well when he was director. But he left a note, a parting note, in which he detailed what he saw as the problems. I kept that in my desk. Never had an opportunity to refer to it very often, but it just struck me that not a whole lot had changed.

And it's true. The external environment, we're still working with the Department of Defense. So there is some tension. Not all of it is unhealthy. I think a lot of the tension has been good.

Colonel Hansen, I knew better. When I was the chief of the aviation pathology branch, he was the director. A traditional pathologist, I'm not sure he necessarily saw the great value of aviation pathology. I viewed it as my job to educate him, so every opportunity that I had, I involved him. For example, I made him the chairman of the Joint Committee on Aviation Pathology, when it was the Army's turn to be that, and so he then went to the scientific sessions and became involved. I, in fact, even wrote a paper for him to present. And so he, I think, on balance, was very supportive of our programs.

Dr. Cowart was a very strong director who, I guess, in retrospect, from my perspective as a branch head, was not terribly visible, and yet, over the years, has been one of my closest advisors, a person that I would often turn to for advice. He was readily at hand; he was the executive director, I think, of the American Registry of Pathology, actually in the building. Like the other directors, he didn't volunteer unless he was asked, but whenever he was asked, he was a great source of information. He had been a curator of the Museum, too, you see, and so we shared that interest as well.

Dr. Cowan had been here probably for eight years as the deputy director, and then four years as the director, so was probably here longer than any of the others. I've mentioned some of his interests that we shared, so I saw him fairly regularly, on a social basis as well as professionally. He would often go out with us, in fact, on air crash investigations.

Dr. Karnei, who is my successor, of course I had gotten to know him as a deputy director. Very hard-charging, interested in just about all aspects of the Institute. He and Colonel Ray Cowan shared an interest in the mechanical workings of the building, the plumbing and the electrical, so they did a lot to keep that running. Some folks accused Dr. Karnei of being a micromanager. I mentioned the triumvirate; we often had to adapt our styles to one another. I don't know that I could say that he was a micromanager, but he certainly became involved in the affairs of the departments.

Of course, Colonel Armbrustmacher, who is the current director, followed Captain Karnei, and he was also a deputy while I was the director. Colonel Armbrustmacher sort of grew up at the Institute, too; he was in the Department of Neuropathology when I, I guess, was a resident at Walter Reed, or maybe it was shortly after I came to the AFIP, I can't remember exactly. And I think he got out of the Air Force and then came back in. But nonetheless he has had an association with the Institute that's been healthy.

Who will be the new ones? The current Navy deputy, Captain Glenn Wagner, in fact worked in aviation pathology with me, so I got to see him and help with his training. He was a

hard-charger. Former Philadelphia policeman, interested in forensic pathology. Just exuberant. Interested in people and lecturing. And so I think in time, as he grows into that job, he'll do a fine job as director as well.

Q: Well, I think we covered this very nicely. Looking back on your full time at the Institute, what gives you the greatest satisfaction?

DR. MCMEEKIN: Oh, clearly the greatest satisfaction is dealing with the wonderful people here. I have never been around such a group of dedicated, motivated, intellectually stimulating people anywhere.

Q: Well, I want to thank you very much.

DR. MCMEEKIN: Okay.